

04/29/2009

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 13 (Canceled).

Claim 14 (Currently Amended): A radial piston pump for high-pressure fuel generation in fuel injection systems of internal combustion engines, having a drive shaft which is mounted in a pump casing and has an eccentric shaft section on which a running roller is mounted, and having a plurality of pistons, which are arranged in a respective cylinder radially with respect to the drive shaft and each have a piston footplate, which makes contact with the circumferential surface of the running roller, at their ends facing the running roller, wherein a surface of the piston footplate which is in contact with the circumferential surface of the running roller has at least one insert made from a wear-resistant material, comprising hard metal, a ceramic material, a cast carbide material or cermet, and/or ~~in that~~ at least part of the running roller, consists of a wear-resistant material comprising hard metal, a sintered tool steel or an alloyed nitriding steel, and wherein the running

roller, on its circumferential surface, has at least one transverse groove extending transversely to the direction of movement.

Claim 15 (Previously Presented): The radial piston pump as claimed in claim 1, wherein the piston consists of a ceramic material.

Claim 16 (Previously Presented): The radial piston pump as claimed in claim 14, wherein the running roller consists of a heat-treated steel and has inserts made from hard metal, and wherein the piston footplate has inserts made from ceramic, from chilled cast iron, or from cermet.

Claim 17 (Previously Presented): The radial piston pump as claimed in claim 14, wherein the running roller consists of a precision-cast material, and wherein the piston footplate has inserts made from ceramic, from hard metal, or from cermet.

Claim 18 (Previously Presented): The radial piston pump as claimed in claim 14, wherein the running roller consists of a cast carbide material, and wherein the piston footplate has inserts made from ceramic, from hard metal, or from cermet.

Claim 19 (Previously Presented): The radial piston pump as claimed in claim 14, wherein the running roller consists of sintered tool steel, or of an alloyed nitriding steel, and wherein the piston footplate has inserts made from ceramic, from hard metal, from cermet or from a cast carbide material.

Claim 20 (Previously Presented): The radial piston pump as claimed in claim 14, wherein the alloyed nitriding steel contains at least one of C, Cr, V and Mo, is gas-nitrided and does not have a compound layer in the region of contact with the piston footplate.

Claim 21 (Previously Presented): The radial piston pump as claimed in claim 14, wherein the running roller, on its circumferential surface, has at least one insert made from the respective wear-resistant material.

Claim 22 (Canceled).

Claim 23 (Currently Amended): ~~The radial piston pump as claimed in claim 14~~ A radial piston pump for high-pressure fuel generation in fuel injection systems of internal combustion engines, having a drive shaft which is mounted in a pump casing and has an eccentric shaft section on which a running roller is

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mounted, and having a plurality of pistons, which are arranged in a respective cylinder radially with respect to the drive shaft and each have a piston footplate, which makes contact with the circumferential surface of the running roller, at their ends facing the running roller, wherein a surface of the piston footplate which is in contact with the circumferential surface of the running roller has at least one insert made from a wear-resistant material, comprising hard metal, a ceramic material, a cast carbide material or cermet, and/or at least part of the running roller, consists of a wear-resistant material comprising hard metal, a sintered tool steel or an alloyed nitriding steel, and wherein the piston footplate has at least two grooves which cross one another on its surface facing the running roller.

Claim 24 (Previously Presented): The radial piston pump as claimed in claim 14, wherein the surface of the piston footplate or of the running roller has a surface roughness R_z of between 0.15 μm and 2 μm .

Claim 25 (Previously Presented): The radial piston pump as claimed in claim 14, wherein the piston consists of an Si_3N_4 ceramic or a ZrO_2 ceramic.

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Claim 26 (Previously Presented): The radial piston pump as claimed in claim 14, wherein the piston is produced by extrusion and has a porosity of less than 5%, the surface being infiltrated with MoS₂.

Claim 27 (Previously Presented): The radial piston pump as claimed in claim 14, wherein the piston is isostatically extruded and sintered.

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